

**Objet260 Connex** 

### Compact Multi-Material 3D Printing System

#### • A Revolution in True-Product Representation

The Objet260 Connex is an affordable, compact version of Objet's pioneering line of multi-material 3D printers. It enables designers and engineers to rapidly build prototypes to simulate their intended end-product closer than any other technology.

#### • What's Unique About Objet Connex?

Using Objet's patented simultaneous multi-material jetting technology, the Objet260 Connex can print up to 14 different material properties within a single printed part. The system is uniquely useful for designers and engineers looking to effectively highlight the varying material components in complex or assembled products.

#### • Freedom to Select your Own Materials

From an unrivalled range of over 60 materials, the Objet260 Connex allows users to select as many as up to 51 Digital Materials with varying mechanical properties, textures and shades simulating anything from rubber to transparency to rigid engineering plastics.

#### • The Best. Now in a Smaller Package

The Objet260 Connex combines Objet's outstanding 16-micron, high-resolution layer accuracy and multi-material printing with a tray size of  $260 \times 260 \times 200$  mm (10.2 x 10.2 x 7.9 inch), small enough to fit in the corner of any office. The system is small, quiet and uses easy to insert materials that come in fully-sealed REACH compliant cartridges.

#### • Harness your Creativity. Advance your Business

The Objet260 Connex gives you the fullest possible idea of how your end product will look and perform. It encourages designers and engineers to explore and innovate and helps them to make the right choices in a much shorter time. And the result for your business? A better end product, that's delivered to market faster and more cost-efficiently than ever before.



### Compact Multi-Material 3D Printing System

#### **Technical Specifications**

Layer Thickness (Z-axis)

Horizontal build layers down to 16-micron

Tray Size (X×Y×Z) 260×260×200 mm (10.2 x 10.2 x 7.9 inch)

Net Build Size (X×Y×Z) 255×252×200 mm (10.0 x 9.9 x 7.9 inch)

#### **Build Resolution**

X-axis: 600 dpi Y-axis: 600 dpi Z-axis: 1600 dpi

#### Printing Modes

Digital Material (DM): 30-micron (0.001 inch) High Quality (HQ): 16-micron (0.0006 inch) High Speed (HS): 30-micron (0.001 inch)

#### Typical Accuracy

20-85um for features below 50mm Up to 200um for full model size

(for rigid materials only, depending on geometry, build parameters and model orientation)

#### **Materials Supported**

- Objet ABS-like Digital Material (RGD5160-DM)
- Objet VeroClear rigid transparent
- Objet Tango family of rubber-like flexible
- Objet FullCure®720 general purpose transparent material
- Objet Vero family of rigid opaque
- Objet DurusWhite polypropolyne-like

#### **Digital Materials**

Wide range of composite materials fabricated on the fly including:

- Engineering plastics such as Objet ABS-like Digital Material (RGD5160-DM), fabricated from RGD515 and RGD535
- Transparent shades and patterns
- Rigid opaque shades
- Different shore value rubber-like materials • Polypropylene with improved thermal resistance

#### Support Type

- Objet FullCure®705 Support
- Non-toxic gel-like photopolymer support easily removed by WaterJet

#### **Materials Cartridges:**

- Four sealed 3.6 kg (7.9 lb) cartridges
- Objet VeroClear, Objet Tango family Objet DurusWhite and Components of Objet ABS-like Digital Material also
- available as 1.44kg (3.17 lb) net weight in a 3.6kg size casing
- Two different model materials loaded Front loading for quick replacement

Power Requirements 110 - 240 VAC 50/60 Hz 1.5 KW single phase

#### Machine Dimensions (W×D×H)

870×735×1200 mm (34.3 x 28.9 x 47.2 inch)

**Machine Weight** Net 264 kg (582 lb)

Gross (in crate) 310 kg (683 lb)

3D Models Printed on Objet260 Connex Compact Multi-Material 3D Printer.

Objet Geometries Ltd., the innovation leader in 3D printing for rapid

prototyping and additive manufacturing, provides 3D printing systems that enable manufacturers and industrial designers to reduce cost of product

Objet's ultra-thin-layer, high-resolution 3D printing systems and materials utilize

PolyJet<sup>™</sup> polymer jetting technology, to print ultra-thin 16-micron layers. The market-proven Objet Eden™ line of 3D Printing Systems and the Objet24 and

Objet30 Desktop 3D printers are based on Objet's patented office-friendly

PolyJet<sup>™</sup> Technology. The Objet Connex<sup>™</sup> family is based on Objet's PolyJet

Matrix Technology, which jets multiple model materials simultaneously and creates

development and dramatically shorten time-to-market of new products.



ABOUT OBJET GEOMETRIES





composite Digital Materials™ on the fly. All Objet systems use Objet's FullCure® materials to create accurate, clean, smooth, and highly detailed 3D parts.

Objet systems are in use by world leaders in many industries, such as Education, Medical / Medical Devices & Dental, Consumer Electronics, Automotive, toys, consumer goods, and footwear industries in North America, Europe, Asia, Australia, and Japan.

Founded in 1998, Objet serves its growing worldwide customer base through offices in USA, Mexico, Europe, Japan, China and Hong Kong, and a global network of distribution partners. Objet owns more than 50 patents and patent pending inventions. For more information, visit us at www.objet.com

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#### Software

Objet Studio<sup>™</sup> features:

- Easy selection of materials including **Digital Materials**
- Part separation into sub-assemblies Automatic real-time support structure
- generation Suggested build orientation, speed and
- auto-placement Slice on the fly
- Network version

#### Input Format

STL, OBJDF and SLC File

#### **Operational Environment**

Temperature  $18^{\circ}C - 25^{\circ}C$  (64.5°F to 71.5°F) Relative Humidity 30 – 70%

#### CADMatrix<sup>™</sup> Add-in

CADMatrix add-in enables designers and engineers to seamlessly assign Objet model materials to multi-part, multi-material designs within CAD software\*, thus allowing for increased control of 3D model validation.

#### **Special Facility Requirements** None

**Print Heads** 

8 units

#### **Network Communication** LAN - TCP/IP

#### Compatibility

Windows XP, Windows Vista, Windows 7

\* CAD software: CADMatrix is compatible with the following: Pro/Engineer®, SolidWorks, AutoDesk Invento





# Objet260 Connex<sup>™</sup>



# The most coveted entry-level multi-material 3D printer.

## Build precise, multi-material prototypes.

The Objet260 Connex<sup>™</sup> gives you the power to simulate the precise look, feel and function of sophisticated finished products. With the widest range of materials and material properties in the world, Connex<sup>™</sup> 3D Printers are the only solution that prints as many as 14 material properties simultaneously in a single part — so you can turn the most creative ideas into realistic models, fast.

Based on PolyJet<sup>™</sup> technology, the Objet260 Connex is ideal for designers and engineers looking to effectively highlight the varying material components in complex or assembled products. It combines outstanding 16-micron, high-resolution layer accuracy with a tray size of 260 x 260 x 200 mm (10.2 x 10.2 x 7.9 in) — small enough to fit in the corner of any office. The system is compact and quiet, using easyto-insert materials in fully-sealed cartridges.

## Maximum materials in a compact 3D printer.

From an unrivalled range of more than 120 materials, including more than 100 Digital Materials<sup>™</sup> created as the model prints, the Objet260 Connex enables you to simulate diverse mechanical and physical properties, from rubber to rigid; opaque to transparent; and standard to ABS-grade.

Base materials include:

**Transparent material** (VeroClear<sup>™</sup>) a nearly colorless material for fit and form testing of detailed transparent parts and models that mimics transparent thermoplastics like poly(methyl methacrylate) (PMMA)

**Rubber-like materials** (Tango family) suitable for a range of applications requiring non-slip or soft surfaces

**Transparent material** (RGD720) for standard plastics simulation requiring dimensional stability and smooth surfaces

**Rigid Opaque materials** (Vero family) in a variety of colors including white, gray, blue and black

#### Simulated Polypropylene materials

(Endur<sup>™</sup> & Durus<sup>™</sup>) for polypropylene-like snap fit applications, flexible closures and living hinges, reusable containers and white appliances

#### Print over 100 digital materials.

The Objet260 Connex 3D Printer can print more than 100 digital materials, including:

Digital ABS<sup>™</sup> (RGD5130, RGD5131, RGD5160, RGD5161) simulates ABS engineering plastics by combining high-temperature resistance with toughness. Digital ABS2<sup>™</sup> matches those properties and provides enhanced dimensional stability in walls thinner than 1.2 mm (.047 in).

**High Temperature material** for advanced functional testing, hot air and water flow, and static applications

#### **Transparent shades and patterns**

#### **Rigid Opaque shades**

Different shore value rubber-like materials

Simulated Polypropylene with improved thermal resistance

Learn more about Objet260 Connex at www.Stratasys.com



# Objet260 Connex

## Backed by proven PolyJet technology.

The Objet260 Connex employs proven PolyJet technology. PolyJet 3D Printing is similar to inkjet document printing. But instead of jetting drops of ink onto paper, PolyJet 3D Printers jet layers of liquid photopolymer onto a build tray and cure them with UV light. The layers build up one at a time to create a 3D model or prototype. Fully-cured models can be handled and used immediately, without additional post-curing. Along with the selected model materials, the 3D printer also jets a gel-like support material specially designed to uphold overhangs and complicated geometries. It is easily removed using a WaterJet.

PolyJet 3D Printing technology has many advantages for rapid prototyping, including professional quality and speed, high precision, and a wide variety of materials. PolyJet technology is a perfect solution for precision prototyping needs and sets the standard for finished-product realism.

# Objet260 Connex Makes 3D Printing As Easy As 1-2-3.

- 1. Prepare the file. Create your 3D model with 3D CAD software, then open Objet Studio<sup>™</sup> software, upload the STL file and click "print." Objet Studio converts your STL file into 3D model print paths – including support structures.
- Print your model. PolyJet technology makes it possible to build your 3D model and its support material – layer by layer – from the bottom up.
- **3. Remove supports.** Take your printed model out of the printer's build chamber and easily remove support material using a WaterJet.

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### **Product Specifications**

#### **Model Materials:**

- Transparent rigid (VeroClear)
- Rubber-like (Tango family) including black & translucent
- Transparent general-purpose (RGD720)
- Rigid Opaque (Vero family)
- Simulated Polypropylene (Endur & Durus)

#### **Digital Model Materials:**

- Transparent shades & patterns
- Rigid Opaque shades
- Rubber-like blends in a range of Shore A values
- Simulated Polypropylene materials with improved heat resistance

#### Support Material:

FullCure<sup>®</sup> 705 non-toxic gel-like photopolymer support

**Build Size:** 255 × 252 × 200 mm (10.0 x 9.9 x 7.9 in)

Layer Thickness: Horizontal build layers down to 16-microns (0.0006 in)

Workstation Compatibility: Windows 7

Network Connectivity: LAN – TCP/IP

#### Size and Weight:

*Objet260 Connex:* 870 x 735 x 1200 mm (34.25 x 28.9 x 47.2 in) 264 kg (582 lbs)

**Power Requirements:** 110–240 VAC 50/60 Hz; 1.5 KW single phase

**Regulatory Compliance:** CE, FCC

#### **Special Facility Requirements:**

Temperature 18-25 °C (64-77 °F); relative humidity 30-70% (non-condensing)

